# HIGH PERFORMANCE INSULATION PROFESSIONALS **ONLINE LEARNING CONTENT**













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# Air Sealing

### Thermal Bypass Checklist

#### AIR SEALING

1 CEU

By completing this session, you will learn how:

- TEC can improve contractor bidding & quality installation
- To improve coordination between framers, insulation installers & air sealers
- To review contractor performance by verifying installations meet objectives of TEC & scope of work
- To facilitate development of in-house procedures for inspection to ensure air & thermal barriers aren't compromised
- Reporting details close to failing should be improved & seize opportunities to simplify construction or reduce \$\$ cost

Duration: 1h 5m (+15m exam)

# Understanding Air Leakage & Sealing in Residential Structures

AIR SEALING

1 CEU

Learning objectives:

- 1. Understand the pressures that make buildings leak & how air moves
- 2. Understand how to measure air leakage
- 3. Learn why air sealing is important for high performance in all aspects of the building and safety of the occupants
- 4. Understand that air tightness does not fall on one trade

Duration: 43m (+15m exam)

# How to Troubleshoot Air Leakage in Single Family Homes

BUILDING SCIENCE

1 CEU

Air sealing a home to reduce air changes per hour can be a daunting task for builders old and new. Insulation professionals are in a perfect position to help builders understand where the air is lost, and how to seal up small and large holes to meet code requirements and performance expectations. In this session, our presenter Kevin Weer, will discuss detailed framing techniques, product and application concepts for air reduction, and simple tricks to help reduce unwanted airflow into the home before and after the sheetrock has been installed.

Kevin Weer graduated from Bob Jones University with a degree in Carpentry and Construction Management. After graduation, he spent ten years building custom homes with a custom home building company. While there Kevin developed his passion for high performance home building and implementing building science best practices into construction methodology. As a HERS Rater over the last ten years he continues to help builders build better performing, longer lasting, and healthier homes by guiding clients through the learning curve associated with high-performance home building with education, collaboration, and third-party inspection.

Duration: 1h 13m

# **Attics, Walls, and Floors**

# Insulating an Attic with Blown-In Insulation

ATTICS/WALLS/FLOORS

1 CEU

- 1. Why should you care if attics are blown properly?
- 2. Procedure to plan, prepare the site, perform and complete the job, and document your work

Duration: 45m (+15m exam)

# Polyiso CI for Code-Compliant Walls in Type V and Residential Construction

ATTICS/WALLS/FLOORS

1 CEU

Continuous insulation is part of building standards and state and energy codes, due to its ability to reduce thermal bridging and its associated heat loss and energy consumption. This course looks at the use of polyisocyanurate as a continuous insulation in Type V and residential construction, and its use as a multifunctional envelope component—air barrier, weather-resistive barrier and vapor retarder—by reviewing code requirements for the building envelope.

Duration: 1h

# High Performance Attics and Walls for New Homes in CA

ATTICS/WALLS/FLOORS

1 CEU

Funded by the California Energy Commission's Electric Program Investment Charge (EPIC) Program, Workforce Instruction for Standards and Efficiency (WISE) is designed to help accelerate learning and implementation of high performance attics and walls by training workers and providing a platform for the exchange of best practices and solutions from industry experts.

- Cite the drivers energy efficiency policy, including California's Title 24 Building Energy Efficiency Standards
- State the requirements of the HPA/HPW perspective and performance options
- Compare the difference and relations between HPA/HPW and Quality Insulation Installation (QII)
- Evaluate installation cost considerations
- Anticipate proposed changes to and impacts from the 2019 Title 24 Codes

Duration: 24m (+15m exam)

### **Advanced Framing Techniques**

#### ATTICS/WALLS/FLOORS

1 CEU

This webinar provides a basic rundown of advanced framing terms and concepts with the goal that insulation contractors can begin to open the door with builders to employ more advanced techniques.

Learning objectives:

- 1. Understand the difference between standard and advanced framing
- 2. Understand common framing terms and practices and their "advanced" counterparts
- 3. Build knowledge to become comfortable talking to builders about advanced framing

Duration: 35m (+15m exam)

### Batt Installation Meeting Grade 1 Standards – Part 1, 2, 3

NAIMA

NOT CEU COMPLIANT

Brian Coble, Director of High Performance Homes for Advanced Energy provides best practices on "Proper Installation of Insulation" as he walks viewers through an ENERGY STAR Home and points out every area of a home that must be insulated to meet RESNET Grade 1 Insulation Installation Requirements. Meeting specific energy efficiency criteria with fiber glass, rock wool and slag wool batt insulation can be easily achieved if the insulation and air sealing package is installed with professionalism and care. Additional energy efficiency measures that need to be performed prior to installing home insulation is also addressed.

Duration: Part 1 - 9m, Part 2 - 9m, Part 3 - 16m

### Batt Installation, Meeting Grade 1 Standards (Spanish Subtitles) – Part 1, 2, 3

NAIMA

NOT CEU COMPLIANT

Brian Coble, Director of High Performance Homes for Advanced Energy provides best practices on "Proper Installation of Insulation" as he walks viewers through an ENERGY STAR Home and points out every area of a home that must be insulated to meet RESNET Grade 1 Insulation. Please click the closed captioned (CC) button at the bottom right to view the Spanish Language subtitles.

Duration: Part 1 - 9m, Part 2 - 9m, Part 3 - 16m

# **Best Practices**

### Why Attend a Hands-On High Performance Certification?

#### BEST PRACTICES

NOT CEU COMPLIANT

HPIP and Certification presenters discuss the upcoming hands-on High Performance Certifications, including a preview of course topics and details.

Duration: 25m

### **HPIP Installation Pro**

#### BEST PRACTICES

1 CEU

Learning objectives:

- 1. Identify professional vs. unprofessional installation and what it means to be a HPIP professional
- 2. Learn how to use the Installation-Pro Checklist
- 3. Be able to use the checklist to plan a professional, safe job at every step of the installation process

Duration: 44m (+15m exam)

### **Fibrous Batt Insulation Grading**

BEST PRACTICES

0.5 CEU

Establish the minimum general requirements for installation, application, and specific materials for fibrous batt insulation, steps to access and apply Grade I, Grade II, Grade III Installation according to RESNET standards.

Duration: 8m (+15m exam)

# Why High Performance Insulation Systems?

BEST PRACTICES

1 CEU

Learning objectives:

- 1. Describe how high performance fiberglass systems work, and why they're superior
- 2. Identify the steps in the installation process
- 3. Describe key safety considerations for installers and your own role in job safety

Duration: 6m (+15m exam)

### **Slabjacking Sales**

GENERAL COURSEWORK

NOT CEU COMPLIANT

This video has helpful information on how to present yourself and sell your products to the typical homeowner that just wants one specific problem fixed, when they really have 3 problems visible and you have the solutions and want the sale.

Duration: 14m

#### **Business Fundamentals**

#### BEST PRACTICES

1 CEU

This course covers the following topics: The Business Bullseye, Marketing, Sales, Operations, Management, and Ownership. The content in this course has been provided by Spray Foam Advisor.

- 1. Overview
- 2. Marketing
- 3. Sales
- 4. Operations
- 5. General Manager
- 6. Owner

**Duration:** Part 1 - 6m, Part 2 - 6m, Part 3 - 6m, Part 4 - 4m, Part 5 - 10m, Part 6 - 6m (+15m exam)

### Signor Beware

BEST PRACTICES

1 CEU

This module is a part of the HPIP Webinar Series. Specifically this session focuses on watching out for pitfalls and perils in contracts.

Duration: 1h 2m (+15m exam)

## Workforce Development

BEST PRACTICES

1 CEU

What's the best kept secret in workforce development? Finding dependable labor at NO COST to you! Join Apryl Simmons and Mary Hammons to find out more about free job training and placement programs like Job Corps and Home Builders Institute Military Services.

Duration: 1h

# EPS: The Economical Choice for Roofing Insulation

BEST PRACTICES

1 CEU

Learning Objectives:

- 1. Define and understand how Expanded Polystyrene (EPS) is manufactured
- 2. Understand the environmental features and benefits of EPS insulation including recyclability, LEED, thermal performance, and energy efficiency
- 3. Understanding key physical properties of the different EPS products used in Roofing applications
- 4. Understand the features and benefits of the different EPS products: standard, faced, and composites and which roofing applications they are used in
- 5. Understand the economic advantages when using EPS in different roofing applications than other insulations. Case Study examples sited
- 6. Understand what key components to consider when preparing a specification for EPS vs another insulation product in a roofing application: R-Value, Compressive Strength, Codes, Product Performance, Labor Costs, LEED and Sustainability, Product Availability and Warranty

Duration: 30m (+15m exam)

### Understanding RESNET's Home Energy Rating System and Its Impact on Insulation Professionals

#### BEST PRACTICES

1 CEU

This webinar will introduce participants to RESNET's Home Energy Rating System (HERS). With nearly 3 million homes being HERS Rated and the addition of more than 200,000 rated homes each year; HERS is the gold standard for rating a home's energy use. Attendees will learn how a home energy rating works and the process for conducting one. In addition, attendees will learn how RESNET's HERS Index is used to support green building, energy efficiency and utility programs as well as building energy codes. This webinar will also introduce RESNET's standard for grading the installation of insulation and explain how it can impact HERS Index scores. With more than 6,000 builders getting their homes HERS Rated last year, insulation professionals need to understand the HERS Index and how it can impact their work and their business.

Duration: 60m

### Assessing & Selling the Health Benefits of Weatherization

#### BEST PRACTICES

1 CEU

A true professional understands it's more than the utility meter we're fixing. When insulating a home and conducting an assessment, you're directly contributing to the health and wellbeing of the occupants. Weatherization is a form of healthcare! In this session, we discuss statistics and data around the health benefits of a well-insulated and energy-efficient home. Cover the data, and learn how to market the health benefits of what you do with our presenter, Joe Medosch. Joe Medosch {med-osh} - Healthy Building Scientist at Hayward Score, Owner of Energy & Environmental Consulting and Founder of HHEA, Healthy Home Environment Association, he is Healthy Homes Master Trainer and has a diverse background in multiple trades that provide a unique understanding of "The House as System." Joe has been evaluating homes (for better or worse) for 20+ years and has been a Comfort Consultant /Trainer for over 10+ years providing solutions on Healthy/Energy Efficient Home Performance. Joe's certifications/knowledge base and committees include: Healthy Homes Master Trainer, Certified Indoor Environmentalist, IAQ/IEQ assessments, ICC, BPI, RESNET, SMACNA, ASTM.

Duration: 58m

# **Building Science**

#### High Performance Insulation Terms & Concepts

#### **BUILDING SCIENCE**

0.5 CEU

Learning objectives:

- 1. Learn about heat transfer and the difference between good and poor insulators
- 2. Identify the thermal envelope as a part of the whole building system to keep heat in during winter and out during summer
- 3. Discuss moisture's potential damage and health risks, and how to manage it
- 4. Learn how insulation reduces airborne sound transmission between rooms in the structure

Duration: 15m (+15m exam)

### **Building Science 101 - A Rater's Point of View**

**BUILDING SCIENCE** 

1 CEU

Join Johnson Environmental's Chris Johnson, ICC IECC Planner Examiner and Inspector, RESNET Rater as he explores Building Science 101.

Duration: 42m (+15m exam)

### Insulation Installation Standards

**BUILDING SCIENCE** 

Learning objectives:

- Know how and why compression, gaps, voids, and misalignment lowers performance
- Understand the RESNET Insulation Grading Standards
- Recognize the minimum installation requirements for various insulation types
- Know what to inspect for to determine whether installation meets RESNET standards and IECC code requirements

Duration: 19m (+15m exam)

#### **Quality Insulation Installation**

#### BUILDING SCIENCE

1 CEU

Funded by the California Energy Commission's Electric Program Investment Charge (EPIC) Program, Workforce Instruction for Standards and Efficiency (WISE) is designed to help accelerate learning and implementation of high performance attics and walls by training workers and providing a platform for the exchange of best practices and solutions from industry experts.

Learning Objectives:

- What is Quality Insulation Installation (QII)?
- Why is it important?
- When is it required?
- What happens when it becomes a prescriptive measure?

Duration: 36m (+15m exam)

### What the HERS Index Means for Insulation Installation Quality

**BUILDING SCIENCE** 

1 CEU

HERS ratings, and raters, are rapidly transforming the building industry. This is especially true for insulation, as HERS rated homes value installation quality in a way traditional code-built homes do not. To succeed in the future, insulation contractors will need to understand HERS ratings, and how to work effectively with HERS raters. In this course, Jordan Doria will share insights on how to effectively collaborate with HERS raters, especially when it comes to insulation installation quality.

In this webinar you will learn:

- The growth of HERS ratings and the growing influence of HERS raters
- The impact of HERS ratings, and raters, on insulation installation quality
- · Getting builders to see and value quality insulation installation
- · Recommended practices for collaborating with raters to deliver quality insulation installations

Duration: 46m (+15m exam)

0.5 CEU

### Sustainable, High Performance Reflective Insulation Products & Systems

**BUILDING SCIENCE** 

1 CEU

Presented By Michael Hayes. In this course, we will explore innovations in reflective and radiant barrier insulation technologies to advance sustainability, cost effectiveness and the energy efficiency of buildings. Meeting sustainable design needs and current building codes to create a tighter, higher performance thermal building envelope.

Learning objectives:

- Understanding all three forms of Heat Transfer, and the impact of Radiant Heat on the Performance of your Building Envelope
- 2. Improving Energy Efficiency and addressing Radiant Heat with Reflective Insulation Products and Systems
- 3. Meeting Increasing R-Values Requirements of Building Codes at Lower Cost, with Hybrid Insulation Systems
- 4. Using Sustainable, High Performance Reflective Insulation Products and Systems to meet Green Building Certifications for both Residential and Commercial Buildings

Duration: 37m (+15m exam)

## **Spray Foam Basics & Not So Basics**

**BUILDING SCIENCE** 

1 CEU

This course covers the following topics: Intro to Building Science, Moisture and Air, R-value and Radiant Break, Vented and Unvented Attics, HVAC Systems, Make-up Air, Building Codes, Jobsites. The content of this course has been provided by Spray Foam Advisor.

- 1. Intro to Building Science
- 2. Moisture and Air
- 3. R-Value and Radiant Break
- 4. Vented and Unvented Attic
- 5. HVAC Systems
- 6. Make-up Air
- 7. Building Codes
- 8. Jobsites

Duration: Part 1 - 8m, Part 2 - 10m, Part 3 - 12m, Part 4 - 11m, Part 5 - 13m, Part 6 - 4m, Part 7 - 13m, Part 8 - 12m (+15m exam)

### Spray Foam in the Building Code

#### **BUILDING SCIENCE**

We are going to dig deep into the International Residential Code, the International Building Code and the International Energy Conservation Code to discuss SPF code requirements, how to overcome challenges and we will offer some advice and experience based on more than 15 years of experience working with code officials. Here are some of the topics we will cover: Building Code Requirements for Spray Foam; Evaluation Reports; Thermal Barriers, Ignition Barriers and Intumescent Coatings; Spray Foam in Unvented Attics; And, How to Meet Energy Code Compliance; Whether you are just starting out or you are a veteran of the industry, you can benefit from this webinar

Duration: 63m

# What the Fluff: How an 80 Year Old Technology is Still Relevant

**BUILDING SCIENCE** 

1 CEU

Fiberglass insulation has been around for close to 80 years, and it's still the most cost effective and thermally efficient option for not only satisfying the energy code as well as advanced programs in many homes and buildings across the country. This course seeks to explain the benefits and why it's still used; from how it's made, how it works, and how it performs in different applications.

Join HPIP and Knauf Insulation's Training and Certification Manager, Clint Shireman! He works with builders and installers nationwide, teaching building science, and spreading best practices. He has been a trainer with HPIP since he joined Knauf in 2013. Along with being involved with HPIP, Clint is involved in RESNET's Emerging Leadership Council, and EEBA's Next Generation Development Committee, focusing on how to recruit the next generation of skilled tradespeople into sustainable construction.

Duration: 48m

1 CEU

#### **Energy Movement**

BUILDING SCIENCE

Learning Objectives:

- 1. Understand difference between thermal & air barriers
- 2. Know their proper locations
- 3. Identify driving forces of air leakage
- Learn the connection between air leakage, energy waste, & moisture problems
- 5. Understand how air ducts affect pressure balances within the home
- 6. Recognize the principle behind the blower door as a tool for measuring air leakage

Duration: 17m (+15m exam)

#### **HPIP Blower Door Course**

BUILDING SCIENCE

Join Knauf Insulation's building envelop training manager, Jonathan Lang as he shows the tricks of the trade in the blower door process and how the blower door is an opportunity not an obstacle.

1 CEU

1 CEU

Duration: 55m (+15m exam)

# Safety

# Building Safety's Essential Role in Resilience and Recovery

SAFETY

0.5 CEU

1 CEU

Dominic Sims, CBO, is the Chief Executive Officer of the International Code Council. He was appointed to the position in 2012. As CEO, Sims is responsible for the overall activities and financial performance of the association, including its six subsidiaries. The Code Council is a member-focused association dedicated to developing model codes and standards used in the design, build and compliance process to construct safe, affordable and resilient buildings. Every state in the U.S. and many global markets rely on the International Codes and its family of services. During his 17-year tenure, Sims has also served the Code Council as Chief Operating Officer and Senior Vice President. He has served on and/or chaired numerous national Committees and Task Forces across a span of topics, including code and standards development, government affairs and business/member development.

Duration: 29m

### Spray Foam Safety

SAFETY

This webinar style course is presented by 2019 HPIP Board Member, Jeremy Leman of Sealtite Insulation. This course covers safety basics of using spray foam and how to best

protect yourself and your team in the field.

Duration: 39m (+15m exam)

# **Structural Insulated Panel Association (SIPA)**

### SIPA - Basic Design and Engineering

#### **BUILDING SCIENCE**

Learning objectives:

- Starting a SIP project
- · Overview of connection details

Duration: 59m (+15m exam)

### SIPA - Finish Materials and Detailing

BEST PRACTICES

1 CEU

#### Learning objectives:

- Attaching siding
- Detailing for moisture protection
- Interior finishes
- Roofing

Duration: 28m (+15m exam)

#### SIPA - Integrating Mechanical Systems

**BEST PRACTICES** 

1 CEU

Learning objectives:

- Electrical
- Plumbing
- HVAC system specification
- Combustion appliance safety

Duration: 49m (+15m exam)

#### SIPA - Introduction to SIPs

#### BEST PRACTICES

Learning objectives:

- History of SIPs
- SIP applications
- Types of SIP core materials
- Types of SIP facing materials

Duration: 52m (+15m exam)

#### SIPA - Layout and Panel Installation

#### BEST PRACTICES

1 CEU

1 CEU

Learning objectives:

- · Preparing SIPs for installation
- Rigging SIPs
- · Sealing SIPs as they are installed
- Maximizing installation efficiency

### SIPA - SIP Building Science

#### **BUILDING SCIENCE**

Learning objectives:

- Importance of building science
- Bulk water management
- · Controlling water vapor
- Designing assemblies to dry
- Ventilation in airtight buildings

Duration: 39m (+15m exam)

### SIPA - SIP Layout Drawings

#### BEST PRACTICES

Learning Objectives:

- Submitting SIP documentation for a building permit
- Types of SIP layout drawings
- Reviewing SIP layout drawings

Duration: 25m (+15m exam)

#### SIPA - SIP Sales

#### **BEST PRACTICES**

Learning objectives:

- · How to sell SIPs to potential home buyers
- Most common objections to SIP construction

Duration: 30m (+15m exam)

1 CEU

Duration: 29m (+15m exam)

1 CEU

1 CEU

1 CEU



#### BEST PRACTICES

Learning objectives:

- Delivery, unloading and staging SIPs
- Storing SIPs on the jobsite
- Jobsite safety
- Material handling equipment

Duration: 30m (+15m exam)

# **Miscellaneous**

### **HPIP Certification & CEU Policy**

TRAINING POLICY COURSE

NOT CEU COMPLIANT

1 CEU

Guideline on what coursework and knowledge base areas are required for initial certification, and criteria for accredited coursework.

Duration: N/A

### **SIPA - The Order Process**

#### BEST PRACTICES

Learning objectives:

- Estimating SIP projects
- Selecting a SIP provider
- Types of different SIP packages
- · Overview of the SIP order process

Duration: 31m (+15m exam)

### Learner Tutorial

LEARNER TUTORIAL

NOT CEU COMPLIANT

Walk through the basics of taking courses, checking your progress & getting set up in the mobile app in this presentation.

Duration: 6m

1 CEU